



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2022-0469; Project Identifier MCAI-2021-00124-Q; Amendment 39-22121; AD 2022-15-02]

RIN 2120-AA64

Airworthiness Directives; Cameron Balloons Ltd. Burner Assemblies

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Cameron Balloons Ltd. (Cameron) Stratus double burner assemblies installed on hot air balloons. This AD was prompted by reports from mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI identifies the unsafe condition as fatigue cracking of the weld on Stratus double burner hangers. This AD requires repetitively inspecting certain Stratus double burner hangers and replacing certain Stratus double burners, and prohibits installing certain parts. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact Cameron Balloons Ltd., St Johns Street, Bedminster, Bristol, BS3 4NH, United Kingdom; phone: +44 0 117 9637216; email: technical@cameronballoons.co.uk; website: <https://www.cameronballoons.co.uk>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (817)

222-5110. It is also available at <https://www.regulations.gov> under Docket No. FAA-2022-04690469.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> under Docket No. FAA-2022-0469; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, the MCAI, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Mike Kiesov, Aviation Safety Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 901 Locust, Room 301, Kansas City, MO 64106; phone: (816) 329-4144; email: mike.kiesov@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to Cameron Stratus double burner assembly part number (P/N) CB8720 and P/N CB8721 installed on hot air balloons. The NPRM published in the *Federal Register* on May 5, 2022 (87 FR 26699). The NPRM was based on MCAI from the European Union Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union. EASA issued AD 2021-0042, dated January 29, 2021 (referred to after this as “the MCAI”), to address the unsafe condition on all hot air balloons. The MCAI states:

An occurrence was been reported of a Stratus burner hanger, [part number] P/N CB8504, failing after landing, leaving one burner unit detached from the load frame. Investigation revealed a limited number of similar failures. Comparable issues have been experienced with other parts of the Stratus product line (see Australian [Civil Aviation Safety Authority] CASA AWB 14-001 [Airworthiness Bulletin AWB 14-001, Issue 3, dated February 5, 2021]). The suspected cause is fatigue cracking of the weld, caused

mainly during ground transportation with the burner erect, combined with an overload event.

This condition, if not detected and corrected, could lead to burner falling on the balloon occupant's head, resulting in injury to balloon occupants. It could also lead to an uncontrolled cold descent and hard landing, possibly resulting in injury to balloon occupants and persons on the ground.

To address this potential unsafe condition, Cameron Balloons issued the SB [Service Bulletin 28, Revision 3, dated February 3, 2021], providing inspection and replacement instructions. It was determined that some burner hangers cannot be inspected as they are covered with a doubler plate to reinforce the central part of the hanger bracket.

For the reasons described above, this [EASA] AD requires repetitive detailed inspections (DET) of the affected parts A and, depending on findings, replacement with a serviceable part. This [EASA] AD also requires direct replacement of the burner hanger installed on affected parts B.

You may examine the MCAI in the AD docket at <https://www.regulations.gov> under Docket No. FAA-2022-0469.

In the NPRM, the FAA proposed to require repetitively inspecting certain Stratus double burner hangers and replacing certain other Stratus double burners. The FAA also proposed to prohibit installing certain parts. The FAA is issuing this AD to prevent burners from separating from the balloon. The unsafe condition, if not addressed, could result in an uncontrolled cold descent and hard landing of the balloon.

Discussion of Final Airworthiness Directive

Comments

The FAA received no comments on the NPRM or on the determination of the costs.

Conclusion

This product has been approved by the aviation authority of another country and is approved for operation in the United States. Pursuant to the FAA's bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI referenced above. The FAA reviewed the relevant data and

determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. This AD is adopted as proposed in the NPRM.

Related Service Information under 1 CFR Part 51

The FAA reviewed Cameron Balloons Service Bulletin 28, Revision 3, dated February 3, 2021. The service information specifies identifying the Stratus double burner hanger, inspecting it in accordance with Cameron Balloons SB28: Accomplishment Instructions, Stratus Double Burner; Mounting Hanger Inspection, CBL/TN/DCB/3191, Issue B, dated February 4, 2020 (CBL/TN/DCB/3191 Issue B), and replacing it if there are any cracks.

The FAA also reviewed CBL/TN/DCB/3191 Issue B, which contains procedures for identifying and inspecting affected Stratus double burner hangers.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Differences Between this AD and the MCAI

The MCAI requires reporting information to Cameron Balloons, and this AD does not.

Costs of Compliance

The FAA estimates that this AD affects 220 burner assemblies that have been produced worldwide. The FAA has no way of knowing how many of these burner assemblies are installed on hot air balloons of U.S. Registry. Therefore, for the purposes of this AD, the FAA is basing the fleet cost estimate on the maximum number of 220 burner assemblies.

The FAA estimates the following costs to comply with this AD:

Estimated costs

Action	Labor Cost	Parts Cost	Cost per hot air balloon	Cost on U.S. operators
Inspect burner hangers	1 work-hour x \$85 per hour = \$85	Not applicable	\$85 per inspection cycle	\$18,700 per inspection cycle

The FAA estimates the following costs to replace a cracked burner hanger or a burner that has a doubler plate. The FAA has no way of determining the number of hot air balloons that would need this action.

On-condition costs

Action	Labor Cost	Parts Cost	Cost per hot air balloon
Replace with a serviceable part	1 work-hour x \$85 per hour = \$85	\$250	\$335

Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: General requirements. Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

Regulatory Findings

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, and
- (3) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

The Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

PART 39 - AIRWORTHINESS DIRECTIVES

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by adding the following new airworthiness directive:

2022-15-02 Cameron Balloons Ltd.: Amendment 39-22121; Docket No. FAA-2022-0469; Project Identifier MCAI-2021-00124-Q.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

(1) This AD applies to hot air balloons, certificated in any category, with a Cameron Balloons Ltd. Stratus double burner assembly part number (P/N) CB8720 or P/N CB8721 installed.

(2) The affected burner assemblies may be installed on hot air balloon models including, but not limited to, those of the following design approval holders:

(i) Aerostar International, Inc.;

(ii) Ballonbau Worner GmbH;

(iii) Balóny Kubíček spol. s.r.o.;

(iv) Cameron Balloons Ltd.;

(v) Eagle Balloons Corp.;

(vi) JR Aerosports, Ltd (type certificate previously held by Sundance Balloons (US));

(vii) Lindstrand Balloons Ltd.; and

(viii) Michael D. McGrath (type certificate subsequently transferred to Andrew Philip Richardson, Adams Aerostats LLC).

(d) Subject

Joint Aircraft System Component (JASC) Code 7100, Powerplant System.

(e) Unsafe Condition

This AD was prompted by mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as suspected fatigue cracking of the weld on affected burner hangers. The FAA is issuing this AD to prevent burners from separating from the balloon. The unsafe condition, if not addressed, could result in an uncontrolled cold descent and hard landing of the balloon.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Definitions

(1) For purposes of this AD, an “affected part A” is a Stratus double burner hanger P/N CB8504, Issue A, Issue B, or Issue C, except those installed on a Stratus double burner P/N CB8720 or P/N CB8721 with a doubler plate reinforcing the central part of the hanger bracket, as shown in figure 2 of Cameron Balloons Service Bulletin 28, Revision 3, dated February 3, 2021.

(2) For purposes of this AD, an “affected part B” is a Stratus double burner P/N CB8720 or P/N CB8721 with a doubler plate reinforcing the central part of the hanger bracket, as shown in figure 2 of Cameron Balloons Service Bulletin 28, Revision 3, dated February 3, 2021.

(3) For purposes of this AD, a “serviceable part” is a Stratus double burner hanger P/N CB8504, Issue D or later.

(h) Actions

(1) Within 10 hours time-in-service (TIS) or 30 days, whichever occurs first after the effective date of this AD, inspect the weld of each affected part A for cracks in accordance with paragraphs 3.1.2 through 3.1.4 and Figure 6 of Cameron Balloons SB28:

Accomplishment Instructions, Stratus Double Burner; Mounting Hanger Inspection, CBL/TN/DCB/3191, Issue B, dated February 4, 2020.

(i) If there are no cracks, repeat the inspection in paragraph (h)(1) of this AD at intervals not to exceed 12 months.

(ii) If there is a crack, before further flight, remove the affected part A from service and install a serviceable part. Installation of a serviceable part on a Stratus double burner assembly constitutes terminating action for the repetitive inspections required by paragraph (h)(1) of this AD for that Stratus double burner assembly.

(2) Within 30 days or 10 hours TIS, whichever occurs first after the effective date of this AD, remove each affected part B from service and install a serviceable part.

(3) As of the effective date of this AD, do not install on any hot air balloon an affected part A.

(4) As of the effective date of this AD, do not install on any hot air balloon an affected part B, unless it is equipped with a serviceable part.

(i) Credit for Previous Actions

You may take credit for the initial inspection required by paragraph (h)(1) of this AD if you performed the inspection before the effective date of this AD using Cameron Balloons Service Bulletin 28, Revision 2, dated March 4, 2020; or Revision 3, dated February 3, 2021.

(j) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the certification office, send it to the attention of the person identified in paragraph (k)(2) of this AD and email to: 9-AVS-AIR-730-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(k) Additional Information

(1) Refer to European Union Aviation Safety Agency (EASA) AD 2021-0042, dated January 29, 2021, for related information. This EASA AD may be found in the AD docket at <https://www.regulations.gov> under Docket No. FAA-2022-0469.

(2) For more information about this AD, contact Mike Kiesov, Aviation Safety Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 901 Locust, Room 301, Kansas City, MO 64106; phone: (816) 329-4144; email: mike.kiesov@faa.gov.

(3) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (l)(3) and (4) of this AD.

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) Cameron Balloons SB28: Accomplishment Instructions, Stratus Double Burner; Mounting Hanger Inspection, CBL/TN/DCB/3191, Issue B, dated February 4, 2020.

(ii) Cameron Balloons Service Bulletin 28, Revision 3, dated February 3, 2021.

Note 1 to paragraph (l)(2)(ii): The document date is identified only on the first page of this document.

(3) For service information identified in this AD, contact Cameron Balloons Ltd., St. Johns Street, Bedminster, Bristol, BS3 4NH, United Kingdom; phone: +44 0 117 9637216; email: technical@cameronballoons.co.uk; website: <https://www.cameronballoons.co.uk>.

(4) You may review this referenced service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: fr.inspection@nara.gov, or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on July 7, 2022.

Christina Underwood, Acting Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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